REMARKS

Claims 29-39, 41-43, 56-58 and 74-84 are pending. Claims 31-33, 41-43 and 56-58 have been withdrawn from consideration. By this amendment, claims 30 and 74 are amended. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

The Examiner has rejected claims 30 and 74 under 35 U.S.C. §112, second paragraph as being indefinite. Specifically, the Examiner alleges that the recitation of "the pairs of chamfers are on all of the valve spool lands" in claims 30 and 74 is inconsistent with the features recited in independent claims 29 and 39 from which claims 30 and 74 depend. This rejection is respectfully traversed.

Claims 30 and 74 have been amended to clarify the language recited therein. Specifically, the amended claims clarify the arrangement of the chamfer pairs in relation to the valve spool land. Thus, applicant respectfully submits that the §112, second paragraph issues are overcome by the clarification of the claim language. Accordingly, withdrawal of the rejection is respectfully requested.

The Examiner rejects claims 29, 30 and 34-38 under 35 U.S.C. §103 (a) as being unpatentable over Yuuichi (JP 8-104246) in view of Kobayashi, et al. (U.S. Patent No. 5,645,107); and claims 39 and 74-84 under 35 U.S.C. §103(a) as being unpatentable over the combination of Yuuichi and Kobayashi in further view of applicant's admitted prior art. These rejections are respectfully traversed.

The Examiner alleges that Fig. 8 of Yuuichi discloses all of the claimed features recited in independent claims 29 and 39 except that the device of Yuuichi includes chamfers on both of the valve spool and valve body. The Examiner alleges that Kobayashi makes up for the deficiencies of Yuuichi and the combination of Kobayashi with Yuuichi provides applicant's claimed combination. Applicant respectfully disagrees.

Applicant notes that each one of the references cited by the Examiner provides a unique chamfer combination provided for a specific purpose. It is this unique design that allows the system to operate in a specific manner. Thus, changing the design of a chamfer arrangement will affect the performance and the operational characteristics of the system for which it was originally designed.

In this respect, applicant submits that the combination of Yuuichi and Kobayashi do not produce applicant's claimed combinations. Applicants independent claims 29 and 39 each recite, *inter alia*, "wherein only one of said valve body and said valve spool includes pairs of chamfers which are so formed that each of ones of the valve body lands and the valve spool lands has only one chamfer." Yuuichi teaches the use of chamfers on both the valve body land and valve body spool. See Figs. 1-8. As correctly stated by the Examiner, Yuuichi fails to suggest or disclose chamfers in which only one of the valve body and valve spool include pairs of chamfers.

In the Office Action, the Examiner points to Figs. 4A and 4B of Kobayashi as providing the features of applicant's claims. In view of these figures, the

Examiner states that "Kobayashi discloses that it is not necessary to have chamfers on the valve body." It appears that the Examiner is alleging that because Kobayashi provides chamfers on only the valve spool, then Kobayashi suggests that it is not necessary to have chamfers on the valve body and thus the combination of Yuuichi and Kobayashi could be achieved. However, the Examiner has failed to recognize that the unique design of Kobayashi is necessary for performing the function for which it was designed. Suggesting that because Kobayashi does not provide chamfers on the valve body lands that the design of the system of Yuuichi could be changed so that the valve body lands also do not have chamfers is unfounded. Changing the system of Yuuichi in this manner would impact the operation characteristics of Yuuichi in an unknown manner. Thus, depending on the specific design criteria, different chamfer arrangements must be determined. One of ordinary skill in the art would not simply transpose the arrangements of the valve body of one system with the valve spool of another system. Experimentation and innovation are used in determining the chamfer arrangements.

Further, even if the Examiner's reasoning is viable, which applicant maintains it is not, if this reasoning is applied to Yuuichi, it would suggest that because Yuuichi provides chamfers on both the valve spool and valve post, then inherently Yuuichi is asserting that it is necessary to include chamfers on both the valve spool and valve posts. Thus, under the Examiner's reasoning Kobayashi and Yuuichi would provide different teachings and could not be combined.

Finally, as provided in M.P.E.P § 2142, in order to establish an obviousness rejection three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Neither Kobayashi or Yuuichi make a suggestion or provide any motivation to change the design of the valve spool and valve land configurations in the manner necessary to combine the teachings of Yuuichi and Kobayashi. The Examiner, however, has stated that it would be obvious to combine the teachings of Yuuichi and Kobayashi for "ease of manufacture". It is unclear to applicant how changing chamfer arrangements significantly eases the manufacturing process. Further, chamfers are necessary features in the operation of the systems of Kobayashi and Yuuichi. Therefore, whimsically eliminating or adding chamfers for manufacturing purposes would unlikely be considered. Furthermore, as stated above, a successful combination of the teachings of Yuuichi and Kobayashi is unlikely due to the fact that the system of Yuuichi and Kobayashi are each designed specifically to operate in a specific manner. Any changes made to the chamfers would change the manner in which the system operates.

It is apparent from the applied references that many chamfer arrangements have been designed. However, the chamfer arrangements are

designed to achieve specific operational characteristics. Thus, any modifications to the chamfer design would also change the operational characteristics. Thus, one of ordinary skill in the art would not look to combine Yuuichi and Kobayashi to produce applicant's claimed invention. Furthermore, applicants admitted prior art fails to make up for the deficiencies of Kobayashi and Yuuichi. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. §103, are respectfully requested.

CONCLUSION

For at least these reasons, it is respectfully submitted that claims 29, 30, 34-39 and 74-84 are distinguishable over the cited references. Favorable consideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further is necessary in order to place this application in condition for allowance, the Examiner is invited to contact Chad Billings (Pat. Reg. No. 48,917) at 1-703-205-8001.

If necessary, the Commissioner of hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit

Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

Kindly replace claims 30 and 74 with the following:

Claim 30. (Twice Amended)

The hydraulic control valve according to claim 29, wherein the pairs of chamfers [are on all of the valve spool lands] are comprised of adjacent valve spool lands, each having a single chamfer provided on an alternate corner from each adjacent valve spool land.

Claim 74. (Amended)

The power steering apparatus according to claim 39, wherein the pairs of chamfers [are on all of the valve spool lands] are comprised of adjacent valve spool lands, each having a single chamfer provided on an alternate corner from each adjacent valve spool land.